

REMARKS

The Examiner required election for further prosecution of either claims 1-16, or 17-19 and 22-23. Applicants affirm the election of the first group of claims.

The Examiner objected to claims 3 and 4 in that in line 3 of each of these claims the phrase "may be" was used. The claims are being amended to recite "is" instead of "may be."

The Examiner next objected to the drawing because display and control device 12 in Figure 1 is not shown connected to anything else. However, as set forth in paragraph [0026] of the description, the display and control device is a remote control unit that works wirelessly. As such, it cannot be shown connected because it is not connected. The Examiner is requested to withdraw the drawing objection.

The rejections of the claims remaining in the application are based on Ni et al. Publication No. 2004/0111040 ("Ni"). Interestingly, however, the invention defined by the claims in issue and Ni have opposite purposes, so they certainly function differently. Ni records cardiovascular information in order to aid the diagnosis of sleep disordered breathing. On the other hand, applicants record sleep disordered breathing information in order to determine the cardiovascular condition of the patient. One certainly does not follow from the other. (Even the Examiner does not suggest that each of the two processes can work in reverse, i.e., that an event of one becomes a condition of the other.)

Paragraph [0006] of Ni says that sleep deprivation may give rise to cardiac disorders. Paragraph [0038] similarly says that untreated sleep apneas or sleep hypopneas can adversely affect the quality of life, including giving rise to high blood pressure and other cardiovascular diseases. But there is nothing here that says that events associated with sleep disordered breathing can be used to give information about cardiovascular diseases. Just the opposite -- Ni says in paragraphs [0039] -

[0048] that heart rate and other physiological events can be used to diagnose sleep disordered breathing.

The Examiner cited several paragraphs in the group [0050]-[0056] of Ni. These paragraphs describe how the recording of cardiovascular data aids in the diagnosis of sleep disordered breathing, not the reverse:

[0050] -- Referring to this paragraph, the Examiner says that "Ni discloses method for monitoring the cardiovascular condition of a patient while treating sleep disordered breathing." But the paragraph does not refer to the patient's cardiovascular condition. The disclosure relates to the detection of cardiac events to inform about the patient's breathing, as the Examiner acknowledges in connection with paragraph [0052]. (See next-to-last paragraph on page 4 of the Office Action.)

[0051] -- This paragraph talks about how cardiac signals can be used to detect disordered breathing. The paragraph does not deal with using disordered breathing to tell anything about the patient's cardiovascular condition.

[0052] -- The Examiner, on page 5 of the Office Action, says that Ni records events associated with the patient's breathing, such as heart rate. But the paragraph does not say that any of the enumerated events (QT interval, EEG, ECG, EMG, heart rate, blood pressure, etc.) is actually recorded. Besides, even if they are recorded, these events are used to tell one something about the patient's disordered breathing. The subject invention is about how the patient's disordered breathing events tell one about his cardiovascular condition.

[0053] -- The Examiner cites this paragraph at the top of page 5 of the Office Action after saying that "Ni also discloses relating to each other the stored information concerning the cardiovascular condition of the patient and the recorded events associated with the treatment of the patient's sleep disordered breathing." But what the paragraph actually discusses is what the Examiner says in the parentheses following this statement -- how signals such as heart rate are used to detect breathing disorders. This is the opposite of applicants' invention.

[0054] -- The Examiner is correct in that this paragraph of Ni refers to recording sleep disordered events, but this has nothing to do with informing anyone about the patient's cardiovascular condition.

[0055] -- This paragraph, like paragraph [0051], talks about detection of signals such as cardiac signals. They are used, according to Ni, to detect disordered breathing. The paragraph does not deal with using disordered breathing to tell anything about the patient's cardiovascular condition.

[0056] -- The Examiner says that Ni discloses "storing information concerning the cardiovascular condition of the patient." But the paragraph actually talks about storing sleep and breathing data, not the patient's cardiovascular condition.

Applicants store data associated with the treatment of sleep disordered breathing. The stored events are related to the cardiovascular condition of the patient. (Claim 1, for example, says that information concerning the patient's cardiovascular condition is also stored, but the feature being relied upon to distinguish Ni is the storing of sleep disordered breathing events that can be related to the patient's cardiovascular condition.) Ni does not care about the patient's cardiovascular condition. He only uses cardiovascular events as indicators of disordered breathing.

Even independent claims 9 and 10 are distinguished from Ni. The continuous or periodic recording of both cardiac and sleep disordered breathing information on similar time scales allows two conditions to be related to each other. Ni, even if he records everything, does not relate two conditions to each other.


In the Section 103 rejection of claims 12-16, the Examiner cited paragraph [0076] of Ni for its teaching of making the stored data available to a physician who is treating at least one disease other than sleep disordered breathing. However, providing even all of the recorded data to a physician does not achieve the objective of the claimed invention since Ni does not explain how the sleep disordered event data relates to the other disease or how anything about the other disease can be learned from the sleep disordered event data.

The other references cited by the Examiner have been examined but are not believed to be relevant to applicants' invention as claimed.

It is respectfully requested that the application be passed to issue.

Respectfully submitted
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